What is claimed is:

1. A rotary aircraft elastomeric bearing assembly, comprising:
an outer housing having a first section and a second section;
a tapered conical inboard bearing element disposed within the first section, a taper of the inboard bearing being inwardly directed; and,
a tapered conical outboard bearing element disposed within the second section, a taper of the outboard bearing being inwardly directed in a direction that is substantially directly opposed to the inboard bearing taper, wherein an axial pre-load is applied through the opposed inboard bearing element and the outboard bearing element.

2. The bearing assembly of Claim 1, further comprising a plurality of flange sections extending from the outer housing.

3. The bearing assembly of Claim 1, further comprising an elastomeric element within the inboard bearing element.

4. The bearing assembly of Claim 1, further comprising an elastomeric element within the outboard bearing element.

5. The bearing assembly of Claim 1, wherein an outer surface of the inboard bearing element is bonded to an inner surface of the outer housing.

6. The bearing assembly of Claim 1, wherein an outer surface of the outboard bearing element is bonded to an inner surface of the outer housing.

7. The bearing assembly of Claim 1, wherein the inner race of the inboard bearing and the inner race of the outboard bearing are configured to receive a journal.

8. The bearing assembly of Claim 1, wherein the axial pre-load is about 8,500 to 15,000 pounds.

9. A rotary aircraft opposed tapered conical elastomeric flap bearing assembly, comprising:
an outer housing defining a first and a second section, the outer housing having an outer surface configured to attach to a hub center body and an inner surface configured to receive a set of opposed taper conical bearing elements;

a tapered conical inboard bearing element having an outer race and an inner race, the outer race being bonded to the inner surface of the outer housing and the inner race having an extended portion defining a closed end plate, the closed end plate defining a plurality of bores therethrough;

a tapered conical outboard bearing element having an outer race and an inner race, the outer race being bonded to the inner surface of the outer housing and the inner race being frictionally engaged with the extended portion of the inner race of the inboard bearing element, the inner race of the outboard bearing element forming an outer plate defining a plurality of bores therethrough, wherein an axial pre-load is applied to the inboard bearing element and the outboard bearing element; and

at least one bearing coupler lug connecting the bearing elements.

10. The bearing assembly of Claim 9, wherein the pre-load is in a range from about 8,500 pounds to about 15,000 pounds.

11. The bearing assembly of Claim 9, wherein the plurality of bores defined through the respective inner races includes at least one of an axial bore, a bearing coupler bore and a dowel bore.

12. The bearing assembly of Claim 9, further comprising an elastomeric element within the inboard bearing element.

13. The bearing assembly of Claim 9, further comprising an elastomeric element within the outboard bearing element.

14. A rotary aircraft fully articulated hub assembly, comprising:

a hub center body including a plurality of attachment sections, configured to receive a plurality of bearing assemblies, positioned about a periphery of the hub center body;

a plurality of rotor assemblies configured to receive a pair of bearing assemblies; and

a plurality of bearing assemblies including an outer housing having an outer surface and an inner surface, the outer surface configured to mechanically connect the bearing assembly to the attachment sections of the hub center body, the inner surface being configured to receive a pair of taper conical elastomeric bearing elements, each bearing element having an inner race and

an outer race, an axial pre-load being applied through the inboard bearing element and the outboard bearing element, the respective inner race bearing elements being configured to receive a portion of the rotor assemblies.

15. The hub assembly of Claim 14, wherein the axial pre-load is in a range from about 8,500 pounds to about 15,000 pounds.

16. The hub assembly of Claim 14, wherein the outer race of each bearing element is bonded to the inner surface of the outer housing.

17. The hub assembly of Claim 14, wherein the inner race of one bearing element frictionally engages the inner race of the other bearing element.

18. The hub assembly of Claim 14, further comprising closed end plates formed by the respective inner races of the inboard bearing element and the outboard bearing element.

19. The hub assembly of Claim 18, further comprising a plurality of bearing coupler lugs connecting the inboard bearing element and the outboard bearing element within the outer housing.

20. The hub assembly of Claim 18, further comprising a tie bar attachment lug centrally disposed through the closed end plates connecting the bearing assembly to the rotor assembly.